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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/932,707

08/17/2001

Charles Calvin Byers

44-6

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47382

7590

01/25/2006

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EXAMINER

BELLO, AGUSTIN

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,707

Applicant(s)

BYERS ET AL.

Examiner

Agustin Bello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamanaka (U.S. Patent No. 5,500,523).

Regarding claims 1 and 11, Hamanaka teaches a processing unit (Figure 4) for use in a stored program controlled system comprising a plurality of processing units, wherein communication among said processing units is effected by a free space beam line (reference letter A in Figure 2) configured to contain optically encoded signals transmitted among said plurality of processing units, said processing unit comprising: an aperture (reference numeral 11a in Figure 2) for passage of said beam line configured to permit installation and removal of said processing unit; and means (reference numeral 31,32 in Figure 2) in said aperture connected to each of said plurality of units for receiving optically encoded signals from said beam line after installation of said processing unit. Hamanaka differs from the claimed invention in that Hamanaka fails to specifically teach that the processing unit's aperture for passage of said beam line is configured to permit installation and removal of said processing unit without blocking said

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beam line. However, the examiner believes that the bottom cross-hatched area shown in Hamanaka's Figures 2 does not extend the entire length of the circuit and does not form the bottom edge of the circuit board. In fact, the possibility exists that the cross-hatched area shown in Figures 2 and 4 is simply a leg or stand-off used to properly position the board at a desired height from the element 50 shown in Figures 4 and 5, and that the window portion of the processing unit forms a "T" around the stand-off legs. This possibility is supported by Hamanaka's disclosure that the "electronic circuit board 11 has an opening 11a *defined in one end* thereof." As such, the examiner asserts that the processing unit of the cited reference is configured to permit the installation and removal of the processing unit without blocking the beam line in that the opening of the circuit board is in the form of a "T" occupied by transparent glass and forming the bottom edge of the circuit board with the cross-hatched members shown in Figure 2 acting as stand-off legs for positioning of the circuit board.

Regarding claim 2, Hamanaka teaches that said processing unit comprises a frame (reference numeral 20 in Figure 4).

Regarding claim 3, Hamanaka teaches that said processing unit including a removable portion (reference numeral 10 in Figure 4) so that said beam line is not blocked during installation.

Regarding claims 4 and 12, Hamanaka teaches that said removable portion of said processing unit is configured to be replaceable after installation without blocking said beam line (as seen in Figure 4).

Regarding claims 5 and 13, Hamanaka teaches that said processing unit comprises a board (reference numeral 60 in Figure 5) and said means for receiving optically encoded signals

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from said beam line is movable relative the board (in that card removable portion 10 can be slid in and out of slot 20a in Figure 4) to optimally receive said optically encoded signals in said beam line.

Regarding claim 6, Hamanaka teaches that said processing unit comprises a board (reference numeral 60 in Figure 5) and includes means for transmitting optically encoded signals into said beam line is movable relative the board (in that card removable portion 10 can be slid in and out of slot 20a in Figure 4) to optimally transmit said optically encoded signals into said beam line.

Regarding claim 7, Hamanaka teaches that said processing unit comprises a board (reference numeral 60 in Figure 5).

Regarding claim 8, Hamanaka teaches that said board includes a second aperture (as seen in the plural reference numeral 2 and 31, 32 in Figure 4) .

Regarding claim 9, Hamanaka teaches that said means for receiving optically encoded signals from said beam line is movable relative the board (in that card removable portion 10 can be slid in and out of slot 20a in Figure 4) to optimally receive said optically encoded signals in said beam line.

Regarding claim 10, Hamanaka teaches that said board includes a second means for receiving optically encoded signals from a second beam line and is movable relative the board (in that card removable portion 10 can be slid in and out of slot 20a in Figure 4) to optimally receive said optically encoded signals in said second beam line.

Regarding claims 14, 16, and 17, Hamanaka teaches that said processing unit includes a movable portion (reference numeral 10 in Figure 5) that moves relative to a remainder of the

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processing unit, the movable portion defining part of the aperture (reference numeral 11a in Figure 2) through which said beam line passes, the movable portion being adapted to occupy a first position during installation (e.g. disengaged from element 50 in Figure 5) so that no portion of the beam line is blocked during the installation, the movable portion being adapted to occupy a second position after installation (e.g. engaged to element 50 in Figure 5) so that the movable portion in combination with the remainder of the processing unit defines the aperture (reference numeral 11a in Figure 2) that substantially surrounds the beam line.

Regarding claim 15, Hamanaka teaches that the said processing unit includes a board (reference numeral 10 in Figure 2) , said aperture formed at an edge of the board and configured to encircle a substantial portion but not all of said beam line when the board is installed (as seen in Figures 2-5).

Conclusion

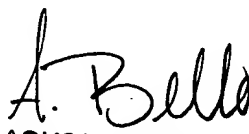
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB


AGUSTIN BELLO
PRIMARY EXAMINER